UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,576	11/01/2000	Fukuharu Sudo	09812.0602-00000	9090

			EXAMINER
22852	7590	09/18/2006	HAN, QI

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ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/674,576	SUDO ET AL.
	Examiner	Art Unit	
	Qi Han	2626	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _27 June 2006_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _2,3,6,7,9,11,23-34 and 36_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _2,3,6,7,9,11,23-34 and 36_ is/are rejected.

7)☒ Claim(s) _35_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

Response to Amendment

2.   This communication is responsive to the applicant's amendment dated 06/27/2006. The

Applicant(s) amended claims 23 and 25-27 and added new claims 35-36 (see the amendment:

pages 5-8).

The examiner withdraws the claim rejection under 35 USC 112 1st, because the applicant

amended **and** clarified the claims (see the amendment: page 10).

Response to Arguments

3.   Applicant's arguments filed on 06/27/2006 with respect to the claim rejection under 35

USC 102 and/or 103, have been fully considered, but are moot in view of the new ground(s) of

rejection, since the amended and new added claims introduce new issue(s) and/or change the

scope of the claims. It is noted that even though the amended claims introduce new issue and/or

change the scope of the claims, the previous cited references are still applicable to the prior art

rejection (see detail below).

In response to applicant's arguments regarding claim 1 that "both Hedin and Ranger fail

to teach or suggests" the claimed limitation "narrows the first content list by calculating the

similarity of acoustic characteristic quantities between..." (the amendment: page 10, paragraph 4

to page 10, paragraph 2), the examiner respectfully disagrees with the applicant and has a

different view of the prior art teachings and the claim interpretations. It is noted that combining

the second reference (Ranger) is for focusing on the Hedin's lacking feature of **"better narrow"**

(see the bold terms of the claim rejection in the previous office action: page 5) the content list,

because Hedin had disclosed the feature of "calculating the similarity of acoustic characteristics

qualities between...", (see Hedin: Fig. 3 and col. 9, line 25 to col. 11 line 41, 'to perform speech

recognition, the RAP's exemplary ASR 307 includes the feature vector (acoustic characteristic

quantities) extraction unit 309, a feature matching (interpreted as calculating the similarity) and

decision unit 311 and RAP reference (preparation information) database 313';col. 15, lines 5-16,

'the user then speaks the city name ...for speech recognition and further processing (also

interpreted as calculating similarity)', wherein 'city option', 'other' and/or entered 'city name'

corresponds to the second or the third information (category)).

It is also noted that the idea of reducing or narrowing content list by providing further

information is well known in the art, as evidence by Ranger (see detail in the corresponding

claim rejection), therefore, it would have been obvious to one of ordinary skill in the art to

combine the teaching of matching feature vectors (acoustic characteristics quantities) through

comparing reference database for speech recognition disclosed by Hedin (col. 9, lines 16-35) and

reducing (narrowing) data (content) list disclosed by Ranger (Fig. 7 and col., 19, line 34 to col.

20, line 47), for the purpose (motivation) of obtaining most relevant content items for user

(Ranger: col. 19, lines 43-44).

Furthermore, Hedin discloses performing 'a so-called "wildcard" recognition operation'

(suggesting including items list) and then providing 'the name of the person' (suggesting

narrowing the items) (col. 9, lines 55-67), which implies that his system is capable of narrowing

the recognizable items and further supports the suggestion/motivation for combining the teaching

of matching feature vectors (acoustic characteristics quantities) through comparing reference

database for speech recognition and the idea of narrowing items by providing further speech

related information.

In response to applicant's argument that "Hedin and Ranger teach away from one another,

and their combination is improper" (the amendment: page 12, paragraph 1 to page 13, paragraph

2), the test for obviousness is not whether the features of a secondary reference may be bodily

incorporated into the structure of the primary reference; nor is it that the claimed invention must

be expressly suggested in any one or all of the references. Rather, the test is what the combined

teachings of the references would have suggested to those of ordinary skill in the art. See *In re*

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, the combination of the

teachings of the cited references would have been obvious to one of ordinary skill in the art, as

stated above (also see detail in the claim rejection, see below).

Regarding other claims, the response is based the same reason described for claim 23 (see

above), because the applicant's arguments (the amendment: page 13, paragraph 3 to page 14,

paragraph 3) are based on the same issue as claim 23.

For above reason, it is believed that the claim rejection based on the combined references

is proper and the applicant's arguments are not persuasive.

Claim Rejections - 35 USC § 103

4.   Claims 2-3, 9, 11, 23, 25-27, 29-30, 32-33 and 36 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Hedin et al. (US 6,185,535) hereinafter referenced as Hedin in view of

Ranger (US 5,999,940).

As per **claim 23**, Hedin discloses voice control of a user interface to service applications

(title), providing the implementation of interactive voice control services (col. 15, lines 55-56),

comprising:

"a portable terminal configured to transmit input speech information to a server over a

network" (Fig. 1a and col. 4 line 44 to col. 5 line 33, 'client part 101', 'server part 103', 'wireless

mobile terminals (portable terminal)', and 'advanced mobile network'; Fig. 3 and col. 2, lines

59-60, 'the unrecognized portion of the audio input signal (input speech information) is

formatted in a data unit that is communicated (transmitted) to a remote application part (server

part)');

"a server configured to receive the transmitted input speech information from said

portable terminal, and to generate a contents list", (Fig. 3 and col. 6 lines 20-39, 'remote

application part (RAP) 205(server) , 'external services and content (ESC) 207'; col. 8 line 56 to

col. 9 line 57, 'speech recognition', 'provide (generate) information and content over the

Internet'; col. 10, line 30 to col. 11 line 40, 'complete menu (corresponding to a contents list)';

col. 14, lines 10-20, 'the service might first present the user with a list of options (contents

list)...').

"wherein the server generates a first contents list by calculating the similarity of acoustic characteristic quantities between first input speech information and the first preparation information for the content items" (col. 14, lines 10-60, 'a weather information (first contents) service might first present the user with a list of options (contents list)...', 'using' the information service' to 'show (generate) weather for:...' in 'a speech recognition enabled terminal (necessarily include input speech information)'; Fig. 3 and col. 9, line 25 to col. 11 line 41, 'to perform speech recognition, the RAP's exemplary ASR 307 includes the feature vector (read on acoustic characteristic quantities) extraction unit 309, a feature matching (read on calculating the similarity) and decision unit 311 and RAP reference database 313' that necessarily includes the first preparation information for the content items' for the matching);

"the server selects the second category or the third category" (col. 15, lines 5-16, 'the user then speaks the city name ...for speech recognition and further processing (calculating similarity)', wherein 'city option', 'other' and/or entered 'city name' can be broadly interpreted as the selected second or the third category).

"wherein the server transmits input request information related to the selected second or the third category to the portable terminal" (col. 1, lines 16-17, 'data is communicated (transmitted) via the Internet to the service application, which can then respond accordingly'; col. 3, lines 20-25, 'terminal application part (terminal side) ...communicated to the remote application part (server side)'; col. 15, lines 5-16, 'the user then speaks the city name ...for speech recognition and further processing (calculating similarity)', wherein 'city option', 'other' and/or entered 'city name' can be broadly interpreted as the selected second or the third category).

Even though Hedin discloses "calculating the similarity of acoustic characteristics

quantities between second input speech information and the second preparation information or

the third preparation information for the content items" (Fig. 3 and col. 9, line 25 to col. 11 line

41, 'to perform speech recognition, the RAP's exemplary ASR 307 includes the feature vector

(acoustic characteristic quantities) extraction unit 309, a feature matching (calculating the

similarity) and decision unit 311 and RAP reference (preparation information) database 313';col.

15, lines 5-16, 'the user then speaks the city name ...for speech recognition and further

processing (calculating similarity)', wherein 'city option', 'other' and/or entered 'city name'

corresponds to the second or the third information (category), Hedin does not expressly disclose

selecting "the second category or the third category based on which category will be **better**

narrow the first contents list" and "the server **narrows** the first content list..." However, the

feature is well known in the art as evidence by Ranger who discloses interactive information

discovery tool and methodology (title), comprising filtering out irrelevant information (narrow

content), avoiding obsolete information (narrow content) and automatically classifying query

results' (col. 2, lines 21-22), providing multiple identifiers for classes, subclasses, objects and

attributes (each group can be interpreted as categories or preparation information) of veracity of

data (content data) (Fig. 3 and col. 6, lines 32-42, col. 7, lines 4-30), and teaches that 'web server

...performs a hit analysis of the query result so that the user can more easily ascertain by

browsing to a relevant bin (category or preparation information) for items that are most relevant

to the user (better narrow content list)' and when 'number of content items (list)' excesses

'predefined threshold' the system may 'reduce scrolling (narrow a list)', readjust the bins, and

that 'class names of the different classes of the first 'M' items are used as bin categories' (Fig. 7

and col., 19, line 34 to col. 20, line 47). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to recognize that the idea of reducing (narrowing) data (content) list disclosed by Ranger can be easily used for matching feature vectors (acoustic characteristics quantities) with reference database for speech recognition disclosed by Hedin (col. 9, lines 16-35), and to modify Hedin by providing a mechanism to reduce and/or readjust (narrow) content items using different class information (bin categories, or preparation information), as taught by Ranger, for the purpose (motivation) of obtaining most relevant content items for user (Ranger: col. 19, lines 43-44).

In addition, Hedin discloses performing 'a so-called "wildcard" recognition operation' and then providing 'the name of the person'(col. 9, lines 55-67), which implies that his system is also capable of narrowing the recognizable items and further provides suggestion/motivation for combining the teachings of the references stated above.

As per **claim 2** (depending on claim 23), Hedin in view of Ranger further discloses "said portable terminal includes speech recognition means for performing speech recognition on said input speech information", (Hedin: col. 4, line 66 to col. 5, line 11, 'the client (terminal) part 101 includes a simple ASR (automatic speech recognition)', 'a menu item', 'recognizing a small number isolated words (read on input speech information)', 'wireless mobile (portable) terminals').

As per **claim 3** (depending on claim 23), Hedin in view of Ranger further discloses "said server includes speech recognition means for performing speech recognition on said input speech information received from said portable terminal over the network, (Hedin: col. 9 lines 1-67, 'an ASR 307 that will recognize the TP audio encoded words', 'able to recognize isolated words, ...

may also have capability of recognizing continuous speech' that includes input speech

information).

As per **claim 25**, it recites a portable terminal for a content selection system. The

rejection is based on the same reason described for claim 23, because claim 25 recites the same

or similar limitation(s) as claim 23.

As per **claim 9** (depending on claim 25), the rejection is based on the same reason

described for claim 2, because claim 9 recites the same or similar limitation(s) as claim 2.

As per **claim 26**, it recites a server for a content selection system. The rejection is based

on the same reason described for claim 23, because claim 26 recites the same or similar

limitation(s) as claim 23.

As per **claim 11** (depending on claim 26), the rejection is based on the same reason

described for claim 3, because claim 11 recites the same or similar limitation(s) as claim 3.

As per **claim 27**, it recites a content selection method. The rejection is based on the same

reason described for claim 23, because claim 27 recites the same or similar limitation(s) as claim

23.

As per **claim 29** (depending on claim 23), Hedin does not expressly disclose that "said

server sends the contents list to said portable terminal if the contents list is determined using

thresholds". However, this feature is well known in the art as evidence by Ranger who discloses

interactive information discovery tool and methodology (title), and teaches that 'web server

…performs a hit analysis of the query result' and 'a predefine threshold parameter 'N' 'indicates

how many contents items must be present in order to trigger the automatic content analysis (col.

19, lines 40-52, and Fig. 7 block 700). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify Hedin by specifically providing a

predefined threshold parameter for the query result of the contents, as taught by Ranger, for the

purpose of triggering the automatic content analysis (Ranger: col. 19, lines 51-52).

As per **claim 30** (depending on claim 23), Hedin in view of Ranger further discloses

"said server requests the input speech information associated with a specified category", (Hedin:

Fig. 3 and col. 15, lines 55-56, 'interactive voice controlled services'; col. 15, lines 10-11,

'device says: "Enter city name" (requested input speech information associated with a category

of city)').

As per **claim 32** (depending on claim 26), the rejection is based on the same reason

described for claim 29, because the claim recites the same or similar limitation(s) as claim 29.

As per **claim 33** (depending on claim 26), the rejection is based on the same reason

described for claim 30, because the claim recites the same or similar limitation(s) as claim 30.

As per **claim 36** (depending on claim 23), Hedin in view of Ranger further discloses "an

optimum output state checking unit, for determining whether information pertinent to contents

items in the first contents list is preferably output at the portable terminal as text, a still image, a

moving picture, or speech", (Hedin: col. 5, lines 50-53, 'graphical information that cannot be

displayed on the relatively low power terminal' (suggesting determining whether information

pertinent to contents items to be output and suggesting possible output for graphical information:

still image or moving picture; col. 7, lines 41-56, 'a menu' (test or image), 'generating audio

output (speech)... indicate ...a change in a current terminal state').

5.   Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedin in view

of Ranger as applied to claims 2 and 3, and further in view of Ladd et al. (US 6,493,671)

hereinafter referenced as Ladd.

As per **claim 6** (depending on claim 2), Hedin in view of Ranger does not expressly

disclose a verifying mechanism for speech recognition as the claimed "said speech recognition

means includes means for verifying whether or not the speech recognition on said input speech

information has been made correctly, such that if the speech recognition is verified by said

verification means to be made correctly, then said input speech information, processed with the

speech recognition means, is output, and if the speech recognition is verified by said verification

means not to be made correctly, then speech recognition to output the speech information

processed with said speech recognition means." However, this feature is well known in the art as

evidence by Ladd who discloses a markup language for interactive service to notify a user of an

event and methods thereof, comprising a voice browser 250 (Fig. 3) (col. 7, line 6) and an

automatic speech recognition (ASR) unit 254, 12-37), and the "DIALOG" element and the

associated "STEP" element of a markup language define a dialogue interpretation between the

voice browser and user, including "confirm" element (col. 18, lines 1-39) for allowing user

verifying the spoken content. Therefore, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to modify Hedin by specifically providing a verifying

mechanism for speech recognition, as taught by Ladd, for the purpose of increasing speech

recognition accuracy.

As per **claim 7** (depending on claim 3), the rejection is based on the same reason

described for claim 6, because claim 7 recites the same or similar limitation(s) as claim 6.

6.   Claims 24, 28, 31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hedin in view of Ranger as applied to claim 23, and further in view of Milsted et al. (US

6,263,313 B1), hereinafter referenced as Milsted.

As per **claim 24** (depending on claim 23), Hedin fails to expressly disclose that "the

categories include title, performer, and genre". However, this feature is well known in the art as

evidence by Milsted who discloses method and apparatus to create encoded digital content (title),

comprising determining the genre of the music selected (col. 66, lines 53-54) and a simple

browser interface with list of titles, performers or new releases to select from (col. 74, lines 39-

41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Hedin by specifically providing categories including title,

performer, and genre, as taught by Milsted, for the purpose of increasing flexibility of selecting

contents.

As per **claim 28** (depending on claim 27), the rejection is based on the same reason

described for claim 24, because the claim recites the same or similar limitation(s) as claim 24.

As per **claim 31** (depending on claim 30), the rejection is based on the same reason

described for claim 24, because the claim recites the same or similar limitation(s) as claim 24.

As per **claim 34** (depending on claim 33), the rejection is based on the same reason

described for claim 24, because the claim recites the same or similar limitation(s) as claim 24.

Allowable Subject Matter

7.   Claim 35 is objected to as being dependent upon a rejected base claim, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims.

The following is an examiner's statement of reasons for the allowable subject matter:

Regarding **claim 35**, the instant application is directed to a contents selection system for

selecting content items, wherein each content item corresponds to a first preparation information

in a first category, a second preparation information in a second category and a third preparation

information in a third category. The dependent claim, combining all limitations of its parent

claims including some well-known features in the art, identifies the uniquely distinct feature of:

selecting the second category or third category based on which category will better

narrow the content list is done by comparing acoustical variations between (among)

preparation information with the second category with acoustical variations between

(among) preparation information with the third category, and selecting the category with

greater acoustical variations; and

wherein the server narrows the first content list by calculating the similarity of acoustic

characteristics quantities between second input speech information and the second

preparation information or the third preparation information for the content items

(inherited from the parent claim 23).

8.   The prior art of record, Hedin et al. (US 6,185,535) Ranger (US 5,999,940), Ladd et al.

(US 6,493,671), and Milsted et al. (US 6,263,313 B1), provided numerous teachings and

approaches for voice/speech controlled interactive system, including voice control of a service

application distributed between the terminal and remote application part, automatic speech

recognition system, client/server based wireless or wireline communication and network, voice-

oriented browser, feature matching and decision for comparing feature vectors for speech

recognition with reference database (preparation information), providing content list and

selecting alternatives from the service menu by key-entering or speech recognition; providing

interactive information discovery, integrating browsing with searching, and reducing

obsolescence of the information, predefining threshold for limiting exceeded number of content

items and reducing hit content items; using markup language for interactive services with voice

browser and confirm step; and providing search capabilities having browser interface with lists

of titles, performers and determining the genre of the music selected. However, the combined

features stated above, are not anticipated by, nor made obvious over the prior art of the record.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A

shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

mailing date of this final action and the advisory action is not mailed until after the end of the

THREE-MONTH shortened statutory period, then the shortened statutory period will expire on

the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Qi Han whose telephone numbers is (571) 272-7604. The
examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:00 p.m. If
attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,
Richemond Dorvil, can be reached on (571) 272-7602.

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QH/qh
September 6, 2006

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SUPERVISORY PATENT EXAMINER